

P A T E N T C L A I M S

5

1. Device (1) for the production of beverages made by adding water to a base material, in particular hot drinks, soups, tea or coffee etc. Said device has a tank for the liquid (2) and a screen basket (3) which can be traveled and which holds the infusion material, and said device is characterized by a gap (6) between the screen basket (3) and the inside wall of the tank (2) which allows the liquid in the tank (2) to flow in essence fully through the screen basket (3) as the screen basket (3) is traveled, thus fulfilling the aim of targeted permeation of and a better flow around the infusion material.
10
2. The device (1) as in claim 1, wherein in the main the entire liquid flows through the screen basket (3).
- 20 3. The device (1) in accordance with one of the above claims, wherein the screen basket (3) is essentially traveled vertically in the liquid.
4. The device (1) in accordance with one of the above claims, wherein the screen basket (3) is pivot-mounted around a vertical axis (50) enabling it
25 to rotate continually, in changing or alternating directions.
5. The device (1) in accordance with one of the claims above, wherein the gap (6) between the side (33) of the screen basket (3) and the inside wall of the tank is fitted with a seal (4, 5), by preference attached in the upper
30 and/or lower area of the screen basket (3), and in particular a seal running around the circumference.

6. Device (1) as in claim 1 above, wherein a drive or a hydraulic system is fitted, in particular a water-operated hydraulic system, to effect the movement of the screen basket (3).
- 5 7. Device (1) as in claim 5 above, wherein the water-operated hydraulic system is or can be connected to a water supply.
8. Device (1) as in one of the above claims, wherein the side walls (33) of the said screen basket (3) are to a large extent impermeable.
- 10 9. Device (1) as in one of the above claims, wherein the said screen basket (3) comprises horizontal compartments (37), preferentially for upward and downward movements in the vertical plane and/or vertical compartments (38), preferentially for rotational movements around a horizontal axis (50).
- 15 10. Device (1) as in one of the above claims, wherein the screen basket (3) is fitted with a floor (35) and/or lid (30) with permeation apertures (31,32).
- 20 11. Device (1) as in one of the above claims, wherein there is a control device for control of the beverage production process dependent on the quantity of liquid and/or liquid temperature and/or variety of tea and/or brewing or infusion time.
- 25 12. Device (1) as in one of the above claims, wherein the control device is programmable.
- 30 13. Device (1) as in one of the above claims, wherein the movement of the said screen basket (3) during the infusion process can be set in such a way that with a predetermined quantity of liquid, the floor of said screen basket (3) is located in the region of the surface of the liquid at the top reversing point of the path described by said screen basket (3).

14. Device (1) as in one of the above claims, wherein the movement of said screen basket (3) during the infusion process can be set in such a way that with a predetermined quantity of liquid, the upper edge of said screen basket (3) is located above the surface of the liquid at the bottom reversing point of the path described by said screen basket (3).

5

15. Device (1) as in one of the above claims, wherein sensors are fitted to detect the path described by said screen basket (3) as it moves.

10 16. Device (1) as in one of the above claims, wherein a heating system (6) is fitted, by preference on the floor of the said tank (2), for heating the liquid in the tank (2).

15 17. Device (1) as in one of the above claims, wherein a cooling system (19) is incorporated, by preference fitted in the upper area of the side walls of the said tank (2).

20 18. Device (1) as in one of the above claims, wherein a temperature sensor (18) for monitoring the temperature of the liquid is incorporated in the said tank (2).

19. Device (1) as in one of the above claims, wherein the said tank (2) can be sealed, for preference by means of a lid (7).

25 20. Device (1) as in one of the above claims, wherein a sensor is incorporated to monitor whether the said tank (2) is closed.

21. Device (1) as in one of the above claims, wherein a display (60), particularly an LCD display and/or signal device (63) are incorporated.

30

22. Device (1) as in one of the above claims, wherein a mounting bracket (61) for the said tank (2) is incorporated.

23. Device (1) as in one of the above claims, wherein a sensor (62) for the monitoring of the weight or the quantity of the liquid in the said tank (2) is incorporated.

5

24. Device (1) as in one of the above claims, wherein the said sensor (62) for monitoring the weight or the quantity of the liquid uses strain gages.

25. A process for the creation of beverages made by the addition of liquid, in particular brewed hot beverages, soups etc., like tea or coffee, where a screen basket (3) containing infusion material is traveled through a tank (2) containing liquid, characterized in that for the production of the beverage the amount of liquid in the said tank (2) is predetermined and the tank (2) filled and/or the tank (2) filled with liquid and the amount of liquid measured, the liquid in the said tank (2) being subsequently heated or cooled to a set temperature and the appropriate brewing or infusion time for the measured amount of liquid and/or temperature of the liquid determined and/or the type of material used for the infusion determined.

20 26. Process as in claim 25, wherein the path described by the said screen basket (3) in its movement is preset according to the selected and/or measured quantity and/or temperature of the liquid and/or the nature of the material used for the infusion.

25 27. Process as in one of the above claims, wherein, after production of the beverage, removal of liquid from the said tank (2) is monitored and the heating (6) /cooling system (19) switched on or off according to the result of this monitoring process or in order to maintain the beverage at a desired temperature.

30

28. Process as in one of the above claims, wherein a weight measuring device (62) is adjusted before filling the said tank (2) with liquid.

29. Process as in one of the above claims, wherein the quantity of liquid remaining in the said tank (2) is monitored and/or displayed during or after removal of some of the liquid.

5

30. Process as in one of the above claims, wherein it is ascertained whether the said tank (2) is closed before the liquid in it is heated.

10

31. Process as in one of the above claims, wherein, when the production process is complete, the said screen basket (3) is moved out of the liquid and the information that the beverage is now ready is displayed.

15

32. Process as in one of the above claims, wherein the remaining time before the end of the brewing or infusion time and thus the time remaining until the beverage is ready and/or the entire production time is displayed during the production process.

20

33. Process as in one of the above claims, wherein the said screen basket (3) is moved by means of a drive system or a hydraulic system, in particular by means of a water-operated hydraulic system.

25

34. Sachet (20) to hold material for the production of beverages made by the addition of water, in particular hot drinks such as soups etc., like tea or coffee, wherein the sachet (20) is subdivided into several chambers (21, 22, 23, 24) through which the liquid can flow and which are arranged for preference perpendicular to its largest cross-section.

35. Sachet (20) as in claim 34, wherein the chambers (21, 22, 23, 24) are separated by partitions (25, 26, 28).

30

36. Sachet (20) as in one of the above claims, wherein the partitions (25, 26, 28) take the form of seams and/or adhesions and/or perforations and/or pressing.

5 37. Sachet (20) as in one of the above claims, wherein individual chambers (21, 22, 23, 24) are detachable and/or can be divided and/or closed off.

10 38. Sachet (20) as in one of the above claims, wherein the sachet (20) is mainly made of a permeable material, in particular paper, netting, fleece, fabric, cellulose products or other similar materials.

15 39. Sachet (20) as in one of the above claims, wherein the sachet (20) essentially is in the shape of the flooded cross-section of the screen basket (3).

20 40. Sachet (20) as in one of the above claims, wherein the sachet (20) has apertures (40) and/or areas with apertures (40) to allow easier passage of liquid through the sachet (20).

25